



CONTROL OF AIRFLOW TO AN INFLATABLE THERMAL DEVICE

This is a divisional of application Serial No. 09/546,078, entitled CONTROL AND DETECTION OF A CONDITION BETWEEN AN INFLATABLE THERMAL DEVICE AND AN AIR HOSE IN A CONVECTIVE WARMING SYSTEM, invented by Van Duren et al., and filed on April 10, 2000, which is a continuation in part of prior application Serial No. 09/138,774, entitled DETECTION OF A CONDITION BETWEEN AN INFLATABLE THERMAL DEVICE AND AN AIR HOSE IN A CONVECTIVE WARMING SYSTEM, invented by Van Duren et al., and filed on August 24, 1998.

now USPN 6,447,538
PV 1-5-07

now USPN 6,126,681
PV 1-5-07

BACKGROUND OF THE INVENTION

This invention relates to pressurized thermal systems that regulate human core temperature by convecting pressurized, thermally regulated air. More particularly, the invention relates to inflatable thermal blankets and the like that are used, for example, in a medical setting to deliver a bath of pressurized air which is heated, cooled, or ambient temperature, for the treatment of hypothermia or hyperthermia. In particular, pressurized, thermally regulated air is used to inflate such a device and is expelled therefrom onto a person or animal. Still more particularly, the invention relates to controlling the flow of pressurized air through the end of an air hose in response to coupling and decoupling the end to the inlet port of an inflatable thermal device.

The International Electrotechnical Commission has promulgated a new standard (IEC 601-2-35) entitled *Particular requirements for safety of blankets, pads and mattresses, intended for heating in medical use*. This standard imposes requirements on the design and operation of convective warming systems. In particular, clause 46.101 states: "If omission of a part, or the interchange of parts of a multi-part heating device, will cause a safety hazard, the heating device shall be